

REMARKS

The Examiner's Office Action of September 25, 2003 has been received and its contents reviewed. Applicants would like to thank the Examiner for the consideration given to the above-identified application.

Claims 73-116, 123-141 and 143-155 are pending for consideration, and claims 117 and 142 have been cancelled. Claims 73, 80, 87, 93, 99, 105, 111, 123 and 129 are independent. In view of the actions above and the following remarks, reconsideration of this application is now requested.

Referring now to the detailed Office Action, claim 119 stands objected to as depending from a cancelled base claim. In response, Applicants have cancelled claim 119, as shown above. Further, Applicants have also cancelled claim 142, which is dependent from cancelled claim 117.

Claim 119 stands objected to under 37 C.F.R. 1.75 as being a substantial duplicate of claim 75. In response, Applicants respectfully submit that the cancellation of claim 119 above renders this objection moot.

Claims 73-116, 119, and 123-155 stand rejected under 35 U.S.C. §103(a) as unpatentable over Zhang et al. (U.S. Patent No. 5,563,426 – hereafter Zhang '426). In the Office Action, the Examiner contends that Zhang '426 does teach forming a channel region in a portion of a film with no grain boundaries. The Examiner cited Figs. 1a, 1b, and 2a-2d of Zhang '426 as teaching a channel region in a portion of a film with no grain boundaries (4).

In response to the Examiner's contention, Applicants respectfully assert that, although Zhang '426 discloses a thin film transistors arranged so that semiconductor regions 6 do not cross boundaries 4 as shown in Fig. 1(C), Zhang '426 does not suggest or disclose the feature of the claimed invention wherein a channel forming region has no grain boundary as recited in Applicants' pending claims.

Further, Applicants respectfully assert that the semiconductor regions 6 of Zhang '426 include grain boundaries since crystals grow in the direction from island nickel regions 2. This direction of crystal growth is illustrated in Applicants' hand-drawn directional arrows in Fig. 1(B) of Zhang '426 in Attachment A submitted herewith. Therefore, Zhang '426 does not disclose or suggest the feature wherein a channel forming region has no grain boundary

of the presently claimed invention.

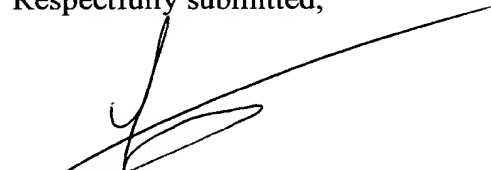
Still further, Zhang '426 does not disclose a concentration of halogen element, a point defect of $1 \times 10^{16} \text{cm}^{-3}$, and a grain size of a monodomain region. Zhang '426 merely discloses an oxygen concentration in a semiconductor film and a size of island nickel.

The requirements for establishing a *prima facie* case of obviousness, as detailed in MPEP § 2143 - 2143.03 (pages 2100-122 - 2100-136), are: first, there must be some suggestion or motivation, either in the reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine the teachings; second, there must be a reasonable expectation of success; and, finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. As Zhang '426 is deficient, as discussed above, the application of Zhang in the §103(a) rejection is improper.

In view of the amendments and arguments set forth above, Applicants respectfully request reconsideration and withdrawal of all the pending rejection and objections.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with Applicants' representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Respectfully submitted,



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